



1644

P#13

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NOV 27 2002

TECH CENTER 1600/290C

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/661,992 A  
Source: 1600  
Date Processed by STIC: 11/21/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name,  
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,  
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,  
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	SERIAL NUMBER: <u>04/661,992 A</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input checked="" type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 3 <sup>rd</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences. Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.	



1600

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02

TIME: 17:17:17

Input Set: A:\237 sequence listing.asc  
 Output Set: N:\CRF4\11212002\I661992A.raw

3 <211> APPLICANT: Scheitlinger, Friedrich  
 4 Kerschbaumer, Randolph  
 5 Falter, Falke-Guenther  
 6 Derner, Friedrich

W--> 8 <120> *<- mandatory number identified and ignore needed*

W--> 10 <130> FILE REFERENCE:

12 <140> CURRENT APPLICATION NUMBER: US 09/661,992A

C--> 14 <141> CURRENT FILING DATE: 2000-09-14 *<- writing it is mandatory number identified and ignore*

14 <140> NUMBER OF SEQ ID NOS: 106

16 <170> SOFTWARE: PatentIn Ver. 2.1

Does N. compl  
and Noedr

Correc

11/21/02

## ERRORED SEQUENCES

18 <210> SEQ ID NO: 1  
 19 <211> LENGTH: 26  
 20 <212> TYPE: DNA  
 21 <213> ORGANISM: Artificial Sequence  
 23 <220> FEATURE:  
 24 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
 26 <400> SEQUENCE: 1

E--> 27 ctcaattttc ttgtccacct tggtgc ~ 26 (global line) , acc cttt 16)  
 28 26

31 <210> SEQ ID NO: 2  
 32 <211> LENGTH: 26  
 33 <212> TYPE: DNA  
 34 <213> ORGANISM: Artificial Sequence  
 36 <220> FEATURE:  
 37 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
 39 <400> SEQUENCE: 2

E--> 40 ctcgattctc ttgatcaact cagtct 2d m1  
 41 26

44 <210> SEQ ID NO: 3  
 45 <211> LENGTH: 24  
 46 <212> TYPE: DNA  
 47 <213> ORGANISM: Artificial Sequence  
 49 <220> FEATURE:  
 51 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
 52 <400> SEQUENCE: 3

E--> 53 tggaatgggc acatgcagat ctct 2d m1  
 54 24  
 57 <210> SEQ ID NO: 4  
 58 <211> LENGTH: 24

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02  
TIME: 11:51:21

Input Set : A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

760 <210> TYPE: DNA

761 <211> ORGANISM: Artificial Sequence

762 <212> FEATURE:

763 <223> OTHER INFORMATION: Description of the artificial sequence:primer

764 <400> SEQUENCE: 4

E--> 66 ctcattcctg ttgaagctct tgac

765 <210> SEQ ID NO: 51

766 <211> LENGTH: 57

767 <212> TYPE: DNA

768 <213> ORGANISM: Artificial Sequence

769 <220> FEATURE:

770 <223> OTHER INFORMATION: Description of the artificial sequence:primer

771 <400> SEQUENCE: 51

E--> 772 catgccatga ctgcggcccc agccggccat ggccsaggtt marctgcags agtcwgg

773 <210> SEQ ID NO: 51

774 <211> LENGTH: 56

775 <212> TYPE: DNA

776 <213> ORGANISM: Artificial Sequence

777 <220> FEATURE:

778 <223> OTHER INFORMATION: Description of the artificial sequence:primer

779 <400> SEQUENCE: 51

E--> 785 gtcttcgcaa ctgcggcccc gcccggccatg gccgaggtgc agcttcagga gtcagg

786 <210> SEQ ID NO: 52

787 <211> LENGTH: 56

788 <212> TYPE: DNA

789 <213> ORGANISM: Artificial Sequence

790 <220> FEATURE:

791 <223> OTHER INFORMATION: Description of the artificial sequence:primer

792 <400> SEQUENCE: 52

E--> 798 gtcttcgcaa ctgcggcccc gcccggccatg gccgatgtgc agcttcagga gtcagg

799 <210> SEQ ID NO: 53

800 <211> LENGTH: 56

801 <212> TYPE: DNA

802 <213> ORGANISM: Artificial Sequence

803 <220> FEATURE:

804 <223> OTHER INFORMATION: Description of the artificial sequence:primer

805 <400> SEQUENCE: 53

E--> 811 gtcttcgcaa ctgcggcccc gcccggccatg gcccaggtgc agctgaagsa gtcagg

812 <210> SEQ ID NO: 54

813 <211> LENGTH: 56

814 <212> TYPE: DNA

815 <213> ORGANISM: Artificial Sequence

816 <220> FEATURE:

817 <223> OTHER INFORMATION: Description of the artificial sequence:primer

818 <400> SEQUENCE: 54

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/661,992A

DATE: 11/11/02  
TIME: 11:11:11

Input Set: A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

823 <400> LENGTH: 54  
E--> 824 gtcctcgcaa ctgcggccca gccggccatg gccgaggtyc agctgcarca rtctgg  
825 <400> SEQ ID NO: 55  
826 <210> LENGTH: 56  
827 <212> TYPE: DNA  
828 <213> ORGANISM: Artificial Sequence  
829 <220> FEATURE:  
830 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
831 <400> SEQUENCE: 55  
E--> 837 gtcctcgcaa ctgcggccca gccggccatg gcccaggtyc arctgcagca gyctgg  
838 <400> SEQ ID NO: 56  
839 <210> LENGTH: 56  
840 <212> TYPE: DNA  
841 <213> ORGANISM: Artificial Sequence  
842 <220> FEATURE:  
843 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
844 <400> SEQUENCE: 56  
E--> 850 gtcctcgcaa ctgcggccca gccggccatg gccgargtga agctggtgga rtctgg  
851 <400> SEQ ID NO: 57  
852 <210> LENGTH: 56  
853 <212> TYPE: DNA  
854 <213> ORGANISM: Artificial Sequence  
855 <220> FEATURE:  
856 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
857 <400> SEQUENCE: 57  
E--> 863 gtcctcgcaa ctgcggccca gccggccatg gccgaggttc agttcagca gtctgg  
864 <400> SEQ ID NO: 58  
865 <210> LENGTH: 56  
866 <212> TYPE: DNA  
867 <213> ORGANISM: Artificial Sequence  
868 <220> FEATURE:  
869 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
870 <400> SEQUENCE: 58  
E--> 876 gtcctcgcaa ctgcggccca gccggccatg gccgaagtgc agctgktgga gwctgg  
871 <400> SEQ ID NO: 59  
872 <210> LENGTH: 56  
873 <212> TYPE: DNA  
874 <213> ORGANISM: Artificial Sequence  
875 <220> FEATURE:  
876 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
877 <400> SEQUENCE: 59  
E--> 889 gtcctcgcaa ctgcggccca gccggccatg gcccagatcc agttgctgca gtctgg  
880 <400> SEQ ID NO: 60  
881 <210> LENGTH: 56  
882 <212> TYPE: DNA  
883 <213> ORGANISM: Artificial Sequence  
884 <220> FEATURE:  
885 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
886 <400> SEQUENCE: 59

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02  
TIME: 1:57:07

Input Set : A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

904 <210> LENGTH: 65  
905 <211> TYPE: DNA  
906 <212> ORGANISM: Artificial Sequence  
907 <220> FEATURE:  
908 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
909 <400> SEQUENCE: 65  
E--> 902 accgcccagag gcgcgcccac ctgaaccgcc tccaccttag gagacggtag ccgtggtccc  
910 60  
E--> 904 ttggcccc  
905 68  
906 <210> SEQ ID NO: 61  
907 <211> LENGTH: 68  
908 <212> TYPE: DNA  
909 <213> ORGANISM: Artificial Sequence  
910 <220> FEATURE:  
911 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
912 <400> SEQUENCE: 61  
E--> 917 accgcccagag gcgcgcccac ctgaaccgcc tccaccttag gagacggtag ccgtggtccc  
913 60  
914 <210> SEQ ID NO: 62  
915 <211> LENGTH: 60  
916 <212> TYPE: DNA  
917 <213> ORGANISM: Artificial Sequence  
918 <220> FEATURE:  
919 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
920 <400> SEQUENCE: 62  
E--> 930 accgcccagag gcgcgcccac ctgaaccgcc tccaccttag gagactgtga gagtggtgcc  
921 60  
922 <210> SEQ ID NO: 63  
923 <211> LENGTH: 60  
924 <212> TYPE: DNA  
925 <213> ORGANISM: Artificial Sequence  
926 <220> FEATURE:  
927 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
928 <400> SEQUENCE: 63  
E--> 943 accgcccagag gcgcgcccac ctgaaccgcc tccacctgca gagacagtga ccagagtccc  
929 60  
930 <210> SEQ ID NO: 64  
931 <211> LENGTH: 60  
932 <212> TYPE: DNA  
933 <213> ORGANISM: Artificial Sequence  
934 <220> FEATURE:  
935 <223> OTHER INFORMATION: Description of the artificial sequence:primer  
936 <400> SEQUENCE: 64  
E--> 956 accgcccagag gcgcgcccac ctgaaccgcc tccaccttag gagacggtag ctgaggttcc  
937 60  
938 <210> SEQ ID NO: 65  
939 <211> LENGTH: 60  
940 <212> TYPE: DNA

26, NC  
↓

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02  
TIME: 1:15:00

Input File: A:\237 sequence listing.asc  
Output File: N:\CRF4\11212002\I661992A.raw

E--> 961 <210> ORGANISM: Artificial Sequence  
E--> 962 <210> FEATURE:  
E--> 963 <213> OTHER INFORMATION: Description of the artificial sequence:  
E--> 964 <400> SEQUENCE: 69  
E--> 969 ggtcagatg ggcgcgcctc tggcggtggc ggatcggaca tttagctcac ccagtctcca  
1141 69  
1142 <210> SEQ ID NO: 70  
1143 <211> LENGTH: 74  
1144 <212> TYPE: DNA  
1145 <213> ORGANISM: Artificial Sequence  
1146 <220> FEATURE:  
1147 <223> OTHER INFORMATION: Description of the artificial sequence:mychis  
1148 <400> SEQUENCE: 79  
E--> 1151 ggcgcgacaa caaaaactca tctcagaaga ggatctgaat ggggcggcac atcaccatca  
1152 69  
E--> 1153 ccatcaactaa taag  
1154 74  
1155 <210> SEQ ID NO: 80  
1156 <211> LENGTH: 74  
1157 <212> TYPE: RNA  
1158 <213> ORGANISM: Artificial Sequence  
1159 <220> FEATURE:  
1160 <223> OTHER INFORMATION: Description of the artificial sequence:mychis  
1161 <400> SEQUENCE: 80  
E--> 1166 aattcttatt agtgtggtg atggatgtt gcccgcctc tcagatcctc ttctgagatg  
1167 60  
E--> 1168 agttttgtt ctgc  
1169 74  
1170 <210> SEQ ID NO: 81  
1171 <211> LENGTH: 726  
1172 <212> TYPE: DNA  
1173 <213> ORGANISM: Artificial Sequence  
1174 <220> FEATURE:  
1175 <223> OTHER INFORMATION: Description of the artificial sequence:scFv region  
1176 <400> SEQUENCE: 81  
E--> 1181 gaggtgaagg tgggtggagtc tggacctgag ctgaagaagg ctggagagac agtcaagatc  
1182 60  
E--> 1183 tcctgcaagg cttctggta tatcttcaca aactatggaa tgaactgggt gaagcaggct  
1184 120  
E--> 1185 ccagggaaagg gtttaaaggat gatgggctgg ataaacaccc acactggaga gccaacatat  
1186 130  
E--> 1187 gctgatgact tcaaggggacg gtttgccttc tctttggaaa cctctgccag cactgcctat  
1188 240  
E--> 1189 ttgcagatca acaacacctaa aaatgaggac acggctacat atttctgtgc attatatggt  
1190 300  
E--> 1191 aactcccccta aggggtttgc ttactggggc caaggggactc tggtaactgt ctctgcagg  
1192 360  
E--> 1193 ggaggcggtt caggtggggcg cgccctctggc ggtggcggat cggatattca gatgacacac  
1194 420

RAW SEQUENCE LISTING  
PATENT APPLICATION NO: US/09/661,992A

DATE: 11/12/02  
TIME: 11:15:06

Input Set : A:\237 sequence listing.asc  
Output File: N:\CRF4\11212002\I661992A.raw

E--> 1195 tctcccaa at tcctgottgt atcagcagga gacagggtta ccataacctg caaggccagt  
1196 460  
E--> 1197 cagagtgtga gtaatgtatgt agcttggta cAACAGAAGC CGGGGAGTC TCTAAACTA  
1198 541  
E--> 1199 ctgatgtact atgcattccaa tcgttacact ggagtccctg atcgcttcac tggcagtgg  
1200 601  
E--> 1201 tatgggacgg atttcacttt caccatcagc actgtgcagg ctgaagacct ggcagtttat  
1202 660  
E--> 1203 ttctgtcagc aggattatgg ctctcctccc acgttcggag gggcaccaa gctggaaatt  
1204 720  
E--> 1205 aaacgg  
1206 726  
1207 <210> SEQ ID NO: 83  
1208 <211> LENGTH: 747  
1209 <212> TYPE: DNA  
1210 <213> ORGANISM: Artificial Sequence  
1211 <214> FEATURE:  
1212 <215> OTHER INFORMATION: Description of the artificial sequence: scFv region  
1213 <400> SEQUENCE: 83  
E--> 1276 gaagtgcagc tggggagtc tggggaggc ctgtgaagc ctggagggtc cctgaaaactc  
1277 60  
E--> 1278 tcctgtgcag cctctggatt cactttcagt acctatacca tgtcttgggt tcgccagact  
1279 120  
E--> 1280 ccggagaaga ggctggagtg ggctgcaacc attagtagtg gtggtagtta cacctactat  
1281 180  
E--> 1282 ccagacagtg tgagggcccg attcaccatc tccagagaca atgccaagaa caccctgtac  
1283 240  
E--> 1284 ctgcaa atga gcagtctgaa gtctgaggac acagccatgt attactgtac aagagatgg  
1285 300  
E--> 1286 ggacacgggt acggtagtag cttgactac tggggccaag gcaccactct cacagtctcc  
1287 360  
E--> 1288 tcaggtggag gcggttcagg tggcgccgc tctggcggtg gcgatcgca aattgtgctc  
1289 420  
E--> 1290 acccagtctc cactctccct gcctgtcagt ctggagatc aagcctccat ctcttgcaga  
1291 480  
E--> 1292 tctagt caga gcattgtaca tagtaatgga aacacattt tagaatggta cctgcagaaa  
1293 540  
E--> 1294 ccagggcagt ctccaa agctc cctgatctac aaagttcca accgatttc tgggtccca  
1295 600  
E--> 1296 gacaaattca gtggcagtgg atcaggaca gatttcacac tcaagatcag cagagtggag  
1297 660  
E--> 1298 gctgaggatc tgggagttta ttactgctt caaggttcac atgttccgtg gacgttcgg  
1299 720  
E--> 1300 ggaggcacca agctggaaat caaacgg  
1301 747  
1457 <210> SEQ ID NO: 87  
1458 <211> LENGTH: 747  
1459 <212> TYPE: DNA  
1460 <213> ORGANISM: Artificial Sequence

J. J. Smith

Input Set : A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

1460 <11> FEATURE:  
1461 <12> OTHER INFORMATION: Description of the artificial sequence:scFv region  
1462 <13> SEQUENCE: 89  
E--> 1466 gaggtgcagc ttcaaggagtc agggggaggc ttagtgaagc ctggagggtc cctgaaactc  
1467 120  
E--> 1468 tcctgtgcag cctctggatt catttttagt agttatacca tgtcttggt tcgccagact  
1469 120  
E--> 1470 ccggagaaga ggctggagtg ggtcgcaacc attagtagtg gtggtagttc cacctactat  
1471 120  
E--> 1472 ccagacagtg tgaaggcccg attcaccatc tccagagaca atgccaagaa caccctgtac  
1473 120  
E--> 1474 ctgcaaatga gcagtctgaa gtctgaggac acagccatgt atcactgtac aagagagggg  
1475 120  
E--> 1476 ggtggttatt acgtcaactg gtacttcgat gtctggccg caggcaccac tctcacagtc  
1477 120  
E--> 1478 tcctcaggtg gaggcggttc aggtggccgc gcctctggcg gtggccgatc ggacatttag  
1479 120  
E--> 1480 ctcacncagt ctccagcttc tttggctgtg tctctagggc agagggccac catatcctgc  
1481 120  
E--> 1482 agagccagtg aaagtgtta tagttatggc aagagttta tgcactggta ccagcagaaa  
1483 120  
E--> 1484 ccagggcgc cacccaaact cctcatctat cgtgcattca acctagaatc tggatccc  
1485 120  
E--> 1486 gccagggtca gtggcagtgg gtctaggaca gacttcaccc tcaccattaa tctctgtggag  
1487 120  
E--> 1488 gctgatgatg ttgcnaaccta ttactgtcag caaagtaatg aggatcccct cacgttcgg  
1489 120  
E--> 1490 gctgggacca gactggaaat aaaacgg  
1491 120  
1552 <210> SEQ ID NO: 89  
1553 <311> LENGTH: 2199  
1554 <12> TYPE: DNA  
1555 <13> ORGANISM: Artificial Sequence  
1557 <120> FEATURE:  
1558 <123> OTHER INFORMATION: Description of the artificial sequence:scFv region  
1560 <400> SEQUENCE: 89  
E--> 1561 atgaaatacc tattgcctac ggcagccgct ggattgttat tactcgccgc ccagccggcc  
1562 60  
E--> 1563 atggcggagg tgaagctggg ggagtctggg ggaggcttag tgaaggctgg agggtcctg  
1564 120  
E--> 1565 aaactctcct gtgcagcctc tggattcaact ttcaagtagct ataccatgtc ttgggttcgc  
1566 120  
E--> 1567 cagactccgg agaagaggct ggagtgggtc gcaaccattt gtagtggngg tagttccacc  
1568 120  
E--> 1569 tactatccag acagtgtgaa gggccgattt accatctcca gagacaatgc caagaacacc  
1570 120  
E--> 1571 ctgtacacctgc aaatgagcag tctgaggtct gaggacacag ccatgttatta ctgtacaaga  
1572 120  
E--> 1573 gaggggggtg gtttcaccgt caactggta ttcgatgtct ggggcgcagg aacctcagtc

Hand  
J

**RAW SEQUENCE LISTING**

PATENT NUMBER: US/09/661,992A

## ANSWER TO THE CHIEF QUESTIONS

TIME: 2:30 p.m.

Input file : A:\237 sequence listing.asc  
Output file: N:\CRF4\11212002\I661992A.raw

E--> 1575 accgtctcct caggtggagg cggttcaggt gggcgccct ctggcggtgg cggatcgac  
1576 148  
E--> 1577 atttgctga cacagtctcc agcttcttg gctgtgtotc tagggcagag gccaccata  
1578 149  
E--> 1579 tcctgcagag ccagtgaaag tggatagttatggctata attttatgca ctggtatcag  
1580 150  
E--> 1581 cagataccag gacagccacc caaactcctc atctatcgat catccaacct agagtctgg  
1582 151  
E--> 1583 atccctgcca ggttcagtg cagtggtctt aggacagact tcaccctcac cattaatcct  
1584 152  
E--> 1585 gtggaggctg atgatgttgc aacattttac tgtagcgtaaa gtaatgagga tccgctcacg  
1586 153  
E--> 1587 ttccgtactg ggaccagact ggaaataaaaa cgggcggccg cagccgggc accagaaatg  
1588 154  
E--> 1589 cctgttctgg aaaaccgggc tgctcaggc gatattactg caccggcgg tgctcgccgt  
1590 155  
E--> 1591 ttaacgggtg atcagactgc cgctctgcgt gattctctta gcgataaacc tgcaaaaaat  
1592 156  
E--> 1593 attattttgc tgattggcga tggatgggg gactcgaaaa ttactgccgc acgttaattat  
1594 157  
E--> 1595 gccgaagggtg cggcggcgtt tttaaaggt atagatgcct taccgcttac cggcaatac  
1596 158  
E--> 1597 actcaactatg cgctgaataa aaaaaccggc aaaccggact acgtcaccga ctggctgca  
1598 159  
E--> 1599 tcagcaaccg cctggtaac cggtgtcaaa acctataacg gcgctggg cgtcgatatt  
1600 160  
E--> 1601 cacaaaaaag atcacccaac gattctggaa atggcaaaag ccgcaggctt ggcgaccgg  
1602 161  
E--> 1603 aacgtttcta ccgcagagtt gcaggatgcc acgcccgtg cgctgggtgc acatgtgacc  
1604 162  
E--> 1605 tcgcgcaaat gctacggtcc gagcgcgacc agtaaaaat gtccggtaa cgctctggaa  
1606 163  
E--> 1607 aaaggcggaa aaggatcgat taccgaacag ctgcttaacg ctctggccga cgttacgctt  
1608 164  
E--> 1609 ggcggcggcg caaaaacctt tgctgaaacg gcaaccgtg gtgaatggca gggaaaaacg  
1610 165  
E--> 1611 ctgcgtgaac aggcacaggc gcgtggttt cagttggtaa gcatgtctc ctcactgaat  
1612 166  
E--> 1613 tcgtgcacgg aagcgaatca gcaaaaaccc ctgcttggcc tggatggta cggcaatatg  
1614 167  
E--> 1615 ccagtgcgtt ggctaggacc gaaagcaacg taccatggca atatcgataa gcccgcagtc  
1616 168  
E--> 1617 acctgtacgc caaatccgca acgtaatgac agtgtaccaa ccctggcgca gatgaccgac  
1618 169  
E--> 1619 aaagccattt aattgtttag taaaaatgag aaaggctttt tcctgcaagt tgaagggtgcg  
1620 170  
E--> 1621 tcaatcgata aacaggatca tgctgcgaat cttgtggc aaattggcga gacggtcgat  
1622 171

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/661,992A

DATE: 01/12/2002  
TIME: 11:17:21

Output file : A:\237 sequence listing.asc  
Input file : N:\CRF4\11212002\I661992A.raw

E--> 1623 ctcgatgaag ccgtacaacg ggcgctggaa ttgcgtaaaa aggaggtaa cacgctggc  
1624 1624  
E--> 1625 atagtcaccc ctgatcacgc ccacgccagc cagatttttgc cgccggatac caaagctccg  
1626 1626  
E--> 1627 ggcctcaccc aggcgtaaa taccaaagat ggccgcgtga tggatgttag ttacggAAC  
1628 1628  
E--> 1629 tccgaagagg attcacaaga acataccggc agtcagttgc gtattgcggc gtatggccc  
1630 2100  
E--> 1631 catgcccca atgttgttgg actgaccgac cagaccgatc tcttctacac catgaaagcc  
1632 2160  
E--> 1633 gctctggggg atatcgacca ccatcaccat caccattaa  
1634 2139  
1785 <210> SEQ ID NO: 21  
1786 <211> LENGTH: 916  
1787 <212> TYPE: DNA  
1788 <213> ORGANISM: Artificial Sequence  
1789 <214> FEATURE:  
1790 <215> OTHER INFORMATION: Description of the artificial sequence: scfv region  
1791 <216> SEQUENCE: 91  
E--> 1794 atgaaatacc tattgcctac ggcagccgtt ggattgttat tactcgccgc ccagccggcc  
1795 60  
E--> 1796 atggcgagg tgaagctggg ggagtctggg ggaggcttag tgaagcctgg agggtccctg  
1797 120  
E--> 1798 aaactctct gtgcagccctc tggattcaact ttcagtagct ataccatgtc ttgggttcgc  
1799 180  
E--> 1800 cagactccgg agaagaggct ggagtgggtc gcaaccatta gtatggngg tagttccacc  
1801 240  
E--> 1802 tactatccag acagtgtgaa gggccgattc accatctcca gagacaatgc caagaacacc  
1803 300  
E--> 1804 ctgtacctgc aaatgagcag tctgaggctt gaggacacag ccatgttata ctgtacaaga  
1805 360  
E--> 1806 gaggggggtg gttcacccgt caactgggtac ttcgatgtct ggggcgcagg aacctcagtc  
1807 420  
E--> 1808 accgtctctt caggtggagg cggttcagggt gggcgccct ctggcggtgg cggatccggac  
1809 480  
E--> 1810 attgtgctga cacagtncc agcttcttg gctgtgtctc tagggcagag ggccaccata  
1811 540  
E--> 1812 tcntgcagag ccagtgaaag tggatgtatgt tatggctata attttatgca ctggatcag  
1813 600  
E--> 1814 cagataccag gacagccacc caaactccctc atctatcgat catccaacct agagtctgg  
1815 660  
E--> 1816 atccctgcca gttcacccgt cagtggtctt aggacagact tcaccctcac cattaaatcc  
1817 720  
E--> 1818 gtggaggctg atgatgttgc aacctattac tgcagcaaa gtaatgagga tccgctcag  
1819 780  
E--> 1820 ttccgttactg ggaccagact ggaaataaaa cggggcccg caccgaagcc ttccactccg  
1821 840  
E--> 1822 cccgggtctt cccgtatgaa acagctggaa gacaaagttag agggatcct tagcaagaac  
1823 900

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02  
TIME: 1:56:11

Input Set : A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

E--> 1824 taccatctag aaaacgaggt agctcgctg aaaaagcttgggtgaacg tgggtggcac  
1825 965  
E--> 1826 catcaccatc accattaa  
1827 976  
2201 <210> SEQ\_ID\_NU: 18 *26.11.02*  
2202 <211> LENGTH: 885  
2203 <212> TYPE: DNA  
2204 <213> ORGANISM: Artificial Sequence  
2301 <220> FEATURE:  
2303 <223> OTHER INFORMATION: Description of the artificial sequence: scfV region.  
2305 <400> SEQUENCE: 885  
E--> 2306 atgaaatacc tattgcctac ggcagccgct ggattgttat tactcgccgc ccagccggcc  
2307 60  
E--> 2308 atggccgagg tgaagctggg ggagtctggg ggaggcttag tgaagcctgg agggtcctgg  
2309 128  
E--> 2310 aaactctcct gtgcagccctc tggattcaact ttcatgtatc ataccatgtc ttgggttcgc  
2311 180  
E--> 2312 cagactccgg agaagaggct ggagtgggtc gcaaccatta gtatggngg tagttccacc  
2313 240 *6.11.02*  
E--> 2314 tactatccag acagtgtgaa gggccgattc accatctcca gagacaatgc caagaacacc  
2315 300  
E--> 2316 ctgtacctgc aaatgagcag tctgaggtct gaggacacag ccatgttatta ctgtacaaga  
2317 360  
E--> 2318 gagggggtg gttcacccgt caactggta tcgcgtgtct gggcgccagg aacctcagtc  
2319 420  
E--> 2320 accgtctcct caggtggagg cggttcaggt gggcgccct ctggcggtgg cggatcggac  
2321 480  
E--> 2322 attgtgctga cacagtctcc agtttctttg gctgtgtctc tagggcagag ggccaccata  
2323 540  
E--> 2324 tcctgcagag ccagtgaaag ttttgatagt tatggctata attttatgca ctggatcag  
2325 600  
E--> 2326 cagataccag gacagccacc caaactcctc atctatcgat catccaacct agagtctgg  
2327 660  
E--> 2328 atccctgcca gttcagtgg cagtgggtct aggacagact tcaccctcac cattaatcct  
2329 720  
E--> 2330 gtggaggctg atgatgttgc aaccttattac tgtcagcaaa gtaatgagga tccgctcag  
2331 780  
E--> 2332 ttccggactg ggaccagact ggaaataaaa cgggcggccog cagaacaaaa actcatctca  
2333 840  
E--> 2334 gaagaggatc tgaatggggc ggcacatcac catcaccatc actaataa  
2335 883

*See following page... for more details*

*no errors exist throughout  
please check all  
similar errors.*

4/66/99.4 //

<210> 87  
<211> 747  
<212> DNA  
<213> Artificial  
Sequence

<220>  
<223> Description of the artificial sequence: scFv  
region

<400> 87  
gaggtgcagc ttcaggagtc agggggaggc ttagtgaagc  
ctggagggtc cctgaaactc 60  
tcctgtgcag cctctggatt catttttagt agttatacca  
tgtcttgggt tcgccagact 120  
ccggagaaga ggstggagtg ggtcgcaacc attagtagtg  
gtggtagttc cacctactat 180  
ccagacagtg tgaagggccg attcaccatc tccagagaca  
atgccaagaa caccctgtac 240  
ctgcaaatga gcagtctgaa gtctgaggac acagccatgt  
atcactgtac aagagagggg 300  
ggtggttatt acgtcaactg gtacttcgat gtctgggcn  
caggcaccac tctcacagtc 360  
tcctcaggtg gaggcggtc aggtgggcgc gcctctggcg  
gtggcgatc ggacatttag 420  
ctcaqncagt ctccagcttc tttggctgtg tctctagggc  
agagggccac catatcctgc 480  
agagccagtg aaagtgttga tagttatggc aagagttta  
tgcaactggta ccagcagaaa 540  
ccagggcagc cacccaaact cctcatctat cgtgcattca  
acctagaatc tgggatccct 600  
gccaggttca gtggcagtgg gtcttaggaca gacttcaccc  
tcaccattaa tcctgtggag 660  
gctgtatgtg ttgqnaccta ttactgtcag caaagtaatg  
aggatcccct cacgttcggt 720

leader  
global "wrap"  
↓  
n's are not  
spliced  
↓  
all p 13  
for error  
for later use

09/66/992A /2

<210> 88  
<211> 249  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of the artificial sequence: scFv  
region

<400> 88  
Glu Val Gln Leu Gln Glu Ser Gly Gly Leu Val Lys  
Pro Gly Gly

1

5

10

all

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe  
Ser Ser Tyr 20

15

25

amino  
acid

30

Sequence

shows the

initial designed  
protein length

and summary

sheet

VARIABLE LOCATION SUMMARY  
PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02  
TIME: 11:16:17

Input file : A:\237 sequence listing.asc  
Output file: N:\CRF4\11212002\I661992A.raw

See Question

Use of n's or Xaa's(NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:47; N Pos. 425,430  
Seq#:49; N Pos. 278  
Seq#:41; N Pos. 125,437,440  
Seq#:92; Xaa Pos. 168  
Seq#:93; N Pos. 228  
Seq#:103; Xaa Pos. 1,3,15,18

← This requires  
I know the above is true

## VERIFICATION SUMMARY

Patent Application: US/09/661,992A

1993: 1994: 1995: 1996: 1997: 1998: 1999:

1996-1997 学年第一学期

Input Set : A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/661,992A

DATE: 11/21/02

TIME: 1:15:17

Input Set: A:\237 sequence listing.asc  
Output Set: N:\CRF4\11212002\I661992A.raw

M:234 Repeated in SeqNo=7

L:1451 M:235 W: Mandatory Feature missing, &lt;221&gt; Tag not found for SEQ ID#:1

L:1451 M:236 W: Mandatory Feature missing, &lt;222&gt; Tag not found for SEQ ID#:1

L:1451 M:240 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:41

L:1451 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:41

L:1451 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:61 SEQ:1

M:234 Repeated in SeqNo=8

L:1451 M:235 W: Mandatory Feature missing, &lt;221&gt; Tag not found for SEQ ID#:8

L:1451 M:236 W: Mandatory Feature missing, &lt;222&gt; Tag not found for SEQ ID#:8

L:1451 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:181

L:1451 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:61 SEQ:8

M:234 Repeated in SeqNo=1

L:1460 M:238 W: Mandatory Feature missing, &lt;221&gt; Tag not found for SEQ ID#:91

L:1460 M:238 W: Mandatory Feature missing, &lt;222&gt; Tag not found for SEQ ID#:91

L:1460 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:181

L:1460 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:461

L:1461 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:541

L:1469 M:238 W: Mandatory Feature missing, &lt;221&gt; Tag not found for SEQ ID#:92

L:1469 M:238 W: Mandatory Feature missing, &lt;222&gt; Tag not found for SEQ ID#:92

L:1469 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:92 after pos.:160

L:1470 M:238 W: Mandatory Feature missing, &lt;221&gt; Tag not found for SEQ ID#:93

L:1470 M:238 W: Mandatory Feature missing, &lt;222&gt; Tag not found for SEQ ID#:93

L:1470 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:180

L:1471 M:238 W: Mandatory Feature missing, &lt;221&gt; Tag not found for SEQ ID#:101

L:1471 M:238 W: Mandatory Feature missing, &lt;222&gt; Tag not found for SEQ ID#:101

L:1471 M:241 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:0